REMARKS

Applicants appreciate the Examiner's thorough examination of the present application as evidenced by the final Office Action of November 7, 2003 (hereinafter "Final Action"). Applicants especially appreciate the indication that Claims 6 - 11, 17 - 22, and 28 - 33 recite patentable subject matter. Applicants respectfully request the Examiner to take one final look at independent Claims 1, 12, and 23 in light of the amendments and remarks included herein. In particular, to advance prosecution and to facilitate an early allowance of the present application, Applicants have amended independent Claims 1, 12, and 23 to remove the recitations related to retrieving the stored command from the database to ensure that the claimed subject matter is not in any way unclear. In addition, Applicants continue to submit that the cited reference fails to disclose or suggest all of the recitations of the independent claims. Therefore, Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration of all pending claims is respectfully requested for at least the reasons discussed hereafter. Alternatively, Applicants respectfully request entry of the present amendment as introducing no new issues and narrowing the issues for further consideration.

Claims 1 - 33 Satisfy the Requirements of 35 U.S.C. §112

Claims 1 - 33 stand rejected under 35 U.S.C. §112 as being indefinite because independent Claims 1, 12, and 23 recite "detecting the stored command in the database." To ensure that the independent Claims 1, 12, and 23 are not in any way unclear, Applicants have amended these claims to remove the recitations related to retrieving the stored command from the database. For example, Claim 1 now recites, in part:

> ...
> detecting the stored command in the database; and
> sending the detected command to the controller.

Claims 12 and 23 include similar recitations. Applicants respectfully submit that the

Specification clearly describes detecting a stored command in the database and sending the detected command to a controller. For example, referring to FIG. 4 of the present application, the Specification explains that the command table may be configured to provide a queue for commands from the client 36. (Specification, page 8, lines 17 - 19). The Specification describes operations of the Command Interface Module (CIM) 86 as follows:

> The CIM 86 may be configured to monitor the command table 62 for commands to process. When the CIM 86 detects a command in the command table 62, the CIM 86 may verify that the detected command is a valid command for the destination controller 38 and may then send the command to the communication driver 88. (Specification, page 9, lines 13 - 17).

Thus, the CIM may detect a command in the command table and send the retrieved command to the controller via the communication driver in accordance with some embodiments of the present invention. Accordingly, Applicants respectfully submit that Claims 1, 12, and 23 and all claims that depend therefrom satisfy the requirements of 35 U.S.C. §112 and respectfully request that the rejection be withdrawn.

Independent Claims 1, 12, and 23 are Patentable over the Cited Reference

Independent Claims 1, 12, and 23 stand rejected under 35 U.S.C. §103 as being unpatentable over U. S. Patent No. 5,923,557 to Eidson (hereinafter "Eidson").

Independent Claims 1, 12, and 23 are directed to methods, systems, and computer program products for communicating with a controller in real-time. For example, Claim 1 recites:

> storing a command for the controller in a database, wherein the command is selected from the group of commands consisting of a write command that is configured to write a value of a real-time process control variable to the controller and a read command that is configured to read a value of a real-time process control variable from the controller;
> detecting the stored command in the database; and
> sending the detected command to the controller.

Claims 12 and 23 include similar recitations.

Thus, according to the recitations of Claims 1, 12, and 23, a write or read command for a controller is stored in a database. The stored command is detected and then sent to the controller. In sharp contrast, Eidson describes an interface to process control devices in which controllers (*e.g.*, controllers 60, 61, and 62) communicate with process control devices (*e.g.*, devices 90, 91, 100, 110, and 112) via mappers (*e.g.*, mappers 70, 71, and 72). (Eidson, col. 3, line 59 - col. 4, line 4). Applicants note that the databases described in Eidson, such as the device-oriented interface database 32 and the device dictionary 38, are used by the mappers 70, 71, and 72 to communicate with the control devices 90, 91, 100, 110, and 112 using an appropriate device oriented protocol 14. In particular, the device-oriented interface database 32 includes information that describes the process control devices in terms of the device-oriented protocol. The device dictionary 38 contains a set of predetermined device-specific information that is tailored in terms of the device-oriented protocol for each process control device supported by a mapper. (Eidson, col. 5, lines 30 - 38). Applicants note that FIG. 3 of Eidson shows a dictionary server 54 that is connected to the communication network 52. This dictionary server 54 is used by the mappers to build device specific information in their respective device-oriented interface databases. (Eidson, col. 10, lines 21 - 29).

The Final Action states:

> ...Eidson, however, provides a mapper which includes a means for obtaining a set of information pertaining to the process control (col. 2, lines 53 - 56). Such a obtaining means of Eidson has the functional limitation of reading and writing the commands that are stored in the database. More importantly, such a functional limitation of Eidson would allow the use of detecting, retrieving and sending the information to the controller. Eidson provides a mapping processor that reads the device specific information from the device dictionary and then write the information to the appropriate entries in the device-oriented interface database. This implication discloses the use to store a read and write commands such that the stored command may be detected, retrieved and then sent to the controller. (Final Action, page 8).

Applicants respectfully disagree that the mapping processor 30 described in Eidson provides the functionality of storing a command for a controller in a database where the command is

selected from a write command that is configured to write a value of a real-time process control variable to the controller and a read command that is configured to read a value of a real-time process control variable from the controller as recited in independent Claims 1, 12, and 23. Instead, Eidson explains that "[t]he mapping processor 30 builds a set of configuration information into the device-oriented interface database 32. The configuration information which the mapping processor 30 builds into the device-oriented interface database 32 includes information that described the process control devices 20-22 in terms of the device oriented protocol 14." (Eidson, col. 4, lines 42 - 47; emphasis added). Thus, Eidson describes storing configuration information that describe process control devices in a database rather than a write and/or read command for a real-time process control variable as recited in independent Claims 1, 12, and 23.

For at least the foregoing reasons, Applicants respectfully submit that independent Claims 1, 12, and 23 are patentable over the cited reference and that dependent Claims 2 - 11, 13 - 22, and 24 - 33 are patentable at least by virtue of their depending from an allowable claim.

CONCLUSION

In light of the above remarks, Applicants respectfully submit that the above-entitled application is now in condition for allowance. Favorable reconsideration of this application is respectfully requested. Alternatively, Applicants respectfully request entry of the present amendment as introducing no new issues and narrowing the issues for further consideration. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

It is not believed that an extension of time and/or additional fee(s)-including fees for net addition of claims-are required, beyond those that may otherwise be provided for in documents accompanying this paper. In the event, however, that an extension of time is necessary to allow consideration of this paper, such an extension is hereby petitioned under 37 C.F.R. §1.136(a). Any additional fees believed to be due in connection with this paper may be charged to our Deposit Account No. 50-0220.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 7, 2004.

Traci Brown